thereto.

Claims 1-38 are currently pending. Of these claims, claims 31-38 have been withdrawn from further consideration due to a restriction requirement. In this Response, applicants amend claims 1, 3-9, 11-13, 16, 18-21, 23-25, 27-31, 33, 35-36 and 38. Claims 1-38, as amended, are presented for reconsideration. Support for the amendment to claim 1 can be found on page 6, lines 13-18, of the specification.

Applicants affirm the election of Group I, claims 1-30, for prosecution on the merits.

Claims 4-20 and 25-30 were rejected as being improper in form. These claims have been amended to correct the dependency problems, as well as the formal objections to claims 27-30 under 35 U.S.C. § 112, second paragraph, and 35 U.S.C. § 101.

Claims 1, 3, 5, 7, 9, 11, 12, 13, 15, 16 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dattagupta et al.

Dattagupta et al describes protein-nucleic acid conjugates, where the nucleic acid functions as a carrier and can carry any kind of labelling groups. The protein is bound to the 3'-end of the nucleic acid. According to the specification and the examples, the insertion of the labelling groups in the nucleic acids takes place statistically be means of intercalation of amino methyl trioxsalene, which is covalently bound to the nucleic acid by radiation (see example 3). The insertion of the labelling groups can also take place via statistical coupling with polyallylamino UTP. A non-statistical insertion of labelling groups and haptens at predetermined positions on the carrier, as now claimed in the present application, is not described.

Claims 2-6, 11, 12 and 16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bredehorst et al. Bredehorst et al disclose a conjugate which contains the insulin-A-chain of the polymeric carrier having a length of 21 amino acids, and a hapten and three fluorescence groups bound thereto. The insertion of the haptens and the labelling groups does not occur at predetermined positions on the carrier, as required in the present claims, since the single monomeric derivatives are not derivatized during the chemical synthesis.

Claims 8 and 10 are rejected under 35 U.S.C. § 103(a) as obvious over Dattagupta et al in view of Bredehorst et al and further in view of Nielsen et al. Nielsen et al is merely cited to teach peptide nucleic acids. Applicants submit that this rejection is no longer valid, since the primary references Dattagupta et al and Bredehorst et al do not teach the limitations of the present claims.

Claim 14 is rejected under 35 U.S.C. § 103(a) as obvious over Bredehorst et al in view of Gadow et al. Gadow et al is merely cited as teaching the use of luminescent metal chelates as markers. Applicants submit that this rejection is no longer valid because Bredehorst et al does not show the limitations of the present claims.

Claims 21, 23 and 24 are rejected under 35 U.S.C. § 103(a) as obvious over Smith et al. Smith et al discloses nucleosides for the synthesis of oligonucleotides containing one or several protected amino groups at the sugar residue. The amino groups can be derivatized with fluorescent labeling groups. Applicants submit that the present invention is not obvious in view of Smith et al because there is no hint in this reference to utilize the simultaneous introduction of labeling groups and haptens.

Claims 22, 25 and 26 are rejected under 35 U.S.C. § 103(a) as being obvious over Lelievre.

Applicants submit that Lelievre is not a valid reference because this reference has been published after the priority dates of the present application. In addition, applicants submit that the peptides of Lelievre et al are not relevant to the present invention. Lelievre et al teach the synthesis of a peptide which is derivatized with biotin at one position and 4-azide-salicylic acid (ASA) at another position. The Lelievre et al article is directed to using this bi-derivativized peptide for studying transfer of GalNAc from the donor substrate to the acceptor polypeptide. Applicants submit that the bi-derivativized peptide was only a reagent and the ASA was introduced at the lysine only to allow the covalent bonding of the peptide acceptor substrate to the enzyme by photochemical cross link. Thus, it does not appear to applicants that the peptides of Lelievre et al are relevant to carrier molecules in immunoassays.

Claims 27-30 are rejected under 35 U.S.C. § 103(a) as obvious over Bredehorst et al in view of Smith et al. Applicants submit that this rejection is no longer valid because Bredehorst et al does not show the limitations of the present invention. The addition of Smith et al would not overcome the failure of the primary reference to show the present invention.

Claims 18-20 are rejected under 35 U.S.C. § 103(a) as obvious over Bredehorst et al in view of Berzofsky et al. Berzofsky et al describe in a very general way the interaction of antigens and antibodies. Berzofsky et al do not contain any instruction for a person of skill in the art to arrive at conjugates with haptens and labeling groups inserted at predetermined positions on the carrier. Therefore, the combination of Bredehorst et al and Berzofsky et al would not result in the present invention.

In view of the amendments and remarks above, applicants submit that this application is in condition for allowance and request reconsideration and favorable action thereon.

If for any reason, the Examiner feels the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not timely filed, applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged to our Deposit Account No. 14-1060, along with any other fees which may be required with respect to this application.

Respectfully submitted,

NIKAIDO, MARMELSTEIN, MURRAY & ORAM LLP

Richard J. Berman
Attorney for Applicants
Registration No. 39,107

Atty. Docket No. P564-7002

Metropolitan Square
655 Fifteenth Street, N.W.
Suite 330 - G Street Lobby
Washington, D.C. 20005-5701
(202) 638-5000
RJB:vrj